



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,115	05/11/2006	Tokinobu Mitasaki	5259-000063/US/NP	1335
27572 7590 04/16/2010 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER				
CHANG, AUDREY Y				
ART UNIT		PAPER NUMBER		
2872				
MAIL DATE		DELIVERY MODE		
04/16/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/579,115

**Applicant(s)**

MITASAKI ET AL.

**Examiner**

Audrey Y. Chang

**Art Unit**

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21, 26, 32, 33, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21, 32, 33, 38, 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Remark*

- This Office Action is in response to applicant's amendment filed January 6, 2010 that has been entered into the file.
- By this amendment, the applicant has amended claims 21 and 32.
- Claim 26 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 16, 2008.
- Claims 21, 32-33, 38 and 39 remain pending in this application.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 21, 32, 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent issued to Ishihara (JP 2003-050534).**

Ishihara teaches, (with regard to amended claims 21 and 32), a *laminated holographic medium* that can be utilized as authentication device for copyright protection wherein the laminated holographic medium is produced by the method including the steps of providing an *identification information recording medium* that is formed by combining a *recording layer* (20B, Figure 8) which implicitly has an exposed surface, a *gap layer* (3C), a *first core layer* (2B), a *first diffraction grating layer* provided in the core layer (2B) for recording data and a *first cladding layer* (3B). Ishihara teaches the information recorded in the recording layer is in the form of recording mark transmittance or non-transmittance of light indicating the information data in accordance with a presence of a hole or a *degree*

Art Unit: 2872

of remittance of the light, (please see the masked pattern for recording layer 20B). Ishihara further teaches that the laminated holographic medium is combined with a *recording medium* (323) including a second cladding layer (3), a second core layer and a second diffraction grating layer formed in the second core layer. It appears that the forming of the identification information recording medium including the step of forming information data on the recording layer (as shown in Figure 6) is *independent and separated* from the formation of the *recording medium* (323) including the *second* diffraction grating layer. It is noted that the recording medium (323) is formed by the steps as shown in Figure 3. The information recorded in recording layer (20B) can be done in a separated step (as shown in Figure 6) *before* it is combined with the recording medium (323). It is either inherently true or obvious modification to one skilled in the art to form the laminated holographic medium by combining the identification information recording medium and the recording medium since they are made by different manufacture processes, to make two separately and then combine the two would reduce the interference between the two processes.

This reference has met all the limitations of the claims. It does not teach explicitly that the recording medium (323) with the second cladding layer, second core layer and second diffraction grating layer is ROM type recording medium. However since the recording medium includes the essentially the same elements as a ROM type medium, the recording medium disclosed therefore includes the claimed ROM type recording medium. This reference also does not teach that the core layer and the diffraction grating layer are separate layers. However to either make them the same layer or different layers are considered to be obvious matters of design choice to one skilled in the art, since them both function the same.

**Claims 21 and 32 have been amended** to include the phrase that the recording layer is arranged on the surface of the recording medium. Ishihara teaches that the recording layer (20B) is arranged on the surface of the *identification information recording medium*, (Figure 8).

With regard to claims 33 and 38, Ishihara teaches laminated holographic medium that can serve as authentication device is formed by the methods disclosed and described above for claims 21 and 32.

**3. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent issued to Ishihara (JP 2003-050534), as applied to claim 21 and 38 above, and further in view of the patent issued to Ramapujam et al (PN. 6,801,348).**

The laminated holographic medium taught by Ishihara as described for claim 21 above has met all the limitations of the claim.

With regard to claim 39, Ishihara does not teach explicitly to have a reflection layer that is provided in the order of the first diffraction grating layer, the recording layer and the reflection layer. Ramapujam et al in the same field of endeavor teaches a waveguide hologram medium where in the reflection mode, a reflection layer or mirror (8, Figure 2A) is provided in the order of the reflection layer (8), the recording layer (24) and the first diffraction grating layer (12). It would then have been obvious to one skilled in the art to apply the teachings of Ramapujam et al to add a mirror or reflection layer for the benefit of making the laminated holographic medium also in a reflection mode so that it satisfies the specific application requirement.

#### ***Response to Arguments***

4. Applicant's arguments filed on January 6, 2010 have been fully considered but they are not persuasive. The newly amended claims have been fully considered and are rejected for the reasons stated above.

5. In response to applicant's arguments which state that according to Figure 11 of the instant application wherein by arranging the recording layer at the surface of the identification information recording medium, that differs from the instant application, the examiner respectfully disagrees since the cited Ichihara also teaches that for the holographic identification information recording medium, the

recording layer (20B) is arranged on the surface of the medium as shown in Figure 8. The second cladding layer and core layer (2 and 3 for the recording medium 323) is NOT for the holographic identification information recording medium the same way as for the instant application. The instant application, in fact does not teach that the recording layer (42) to be at the surface of the medium while in combination with a ROM type recording medium. This reference therefore reads on the instant application. Furthermore, since the diffraction grating is used for recording information in the recording layer, the recording light will pass through core layer and cladding layer before and after the light strikes the diffraction grating. The arguments concerning not passing through core layer and cladding layer is not exactly correct.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (9:00-4:30), alternative Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Audrey Y. Chang, Ph.D.*

*/Audrey Y. Chang/  
Primary Examiner, Art Unit 2872*